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**From Port Salines to Panama City:
The Evolution of Command and Control
in Contingency Operations**

**A Monograph
by
Major Steven W. Senkovich
Infantry**



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**School of Advanced Military Studies
United States Army Command and General Staff College
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...chronological narrative is necessary to provide continuity. Following the Urgent Fury case study, the monograph traces the origins and development of the Goldwater-Nichols Act. Specific emphasis is placed on the issue of inter-service parochialism and its effects on joint operations. Examples of how Goldwater-Nichols improved C2 of joint operations are provided. The monograph then addresses the planning considerations for Operation Just Cause at the operational level; a narrative follows that captures the salient events of that action.

This monograph concludes that Goldwater-Nichols indeed had a profound impact on C2 of contingency operations. This piece of legislation centralized power in the CJCS, eliminating the committee-like process of decisionmaking. The chain-of-command from the NCA down to the tactical level was now more direct than ever before.

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ABSTRACT

FROM PORT SALINES TO PANAMA CITY -- THE EVOLUTION OF C2 IN CONTINGENCY OPERATIONS, by MAJ Steven W. Senkovich, USA, 67 pages.

This monograph examines the evolution of command and control (C2) in contingency operations with respect to the implementation of the Goldwater-Nichols DoD Reorganization Act of 1986. This piece of legislation encompassed a broad set of reforms, to include reorganization of the Joint Chiefs of Staff (JCS), joint officer education, and joint doctrine among others. However, the overarching intent of the bill was to improve the effectiveness of joint operations, with particular emphasis on the functions of C2. The purpose of this monograph, then, is to determine the extent of the impact of Goldwater-Nichols on C2 of contingency operations.

By way of addressing this issue, this monograph will examine two historical case studies of U.S. contingency operations that span the implementation of Goldwater-Nichols; Operations Urgent Fury and Just Cause. Recognizing that significant dissimilarities exist between the two actions, they nevertheless provide a point of departure for analyzing operational level C2 from the perspective of "before and after."

Before examining these case studies, however, this monograph will first discuss the issue of C2 to arrive at a definition that can be used as a standard to measure its relative effectiveness in each respective operation. The definition will underscore the fact that command and control are separate, but interdependent functions. Operation Urgent Fury is then analyzed at the operational level, although a certain amount of the tactical chronology is necessary to provide continuity. Following the Urgent Fury case study, the monograph traces the origins and development of the Goldwater-Nichols DoD Reorganization Act of 1986. The issue of interservice parochialism is addressed in terms of how it affects joint operations, and what measures were implemented to offset these barriers to joint interoperability. A case study of Operation Just Cause is then examined, which details the planning considerations at the operational level.

This monograph concludes that Goldwater-Nichols indeed had a profound impact on C2 of contingency operations at the operational level. This piece of legislation centralized power in the Chairman of the Joint Chiefs of Staff (CJCS), eliminating the committee-like process of decision making. More importantly, it strengthened the command authority of the warfighting CINCs over Service forces committed to him. The chain-of-command from the NCA down to the tactical level was more direct and lucid than ever before, with accountability for performance being established at each level.

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I. Introduction

The decade of the 1990's portends much change. A new geopolitical landscape will emerge, formed by several agents of change, some evolutionary, others revolutionary. Regardless of the outcome of these geopolitical changes, the U.S. will remain a global power with global interests. Accordingly, U.S. military strategy in support of that policy must likewise remain globally oriented. And a longstanding manifestation of that link between national and military strategy has been the forward deployment of U.S. forces.(1)

By the mid-1990's, however, significant reductions in our forward deployed forces will have occurred. This apparent reversal in U.S. strategy for the past 40 years is a result of essentially two factors: the perception of a diminished Soviet threat and budgetary constraints imposed on our force structure.

Despite these force structure reductions, our military commitments will nevertheless remain formidable. Not only must we remain capable of deterring a Soviet-Warsaw Pact attack on NATO, but also responding to crises in the Western Hemisphere, supporting allies in the Pacific rim, and maintaining the free flow of oil from the Persian Gulf.(2)

The diversity of these commitments, especially when viewed in light of our post-Viet Nam conflicts, strongly suggests that global contingencies requiring U.S. military intervention will be the most probable form of future conflict.(3) Such operations would normally involve the projection of force to achieve

national security objectives when strategic interests are at stake and time is constrained. A contingency might involve, for example, U.S. military forces being used as a show of force in support of a threatened ally.(4) Operation Golden Pheasant conducted in Honduras in 1988, is a case in point. Contingency operations may also involve actual combat, as in Grenada and Panama.

Because of their complex nature, most contingency operations will inherently be a joint undertaking, with the supported CINC task organizing the Service components into a Joint Task Force (JTF). Accordingly, effective Service interoperability, or "jointness," is essential.(5) But U.S. forces should not be employed in a joint operation simply because they have the ability to do so. Although every joint operation is situation dependent, a JTF should be employed to produce a synergistic effect by concentrating combat power that is greater than the sum of its components. This combined power allows the joint force commander to apply overwhelming force at decisive points using a wide array of assets. It is this overwhelming application of military force, read mass, that will take the initiative from opponents and defeat them.(6) But success in contingency operations is dependent upon more factors than mass.

Successful contingency operations require flexibility, imaginative leadership, thorough planning, and decentralized execution.(7) To create an environment that allows for decentralized execution, however, an effective command structure

is a prerequisite. In fact, of all aspects of contingency operations, command and control (C2) may be the most important.(8)

Command and control are essential functions for any military operation, but more so in contingency operations because of the somewhat ad hoc nature of joint operations. But recent history has revealed that our Services have not performed this critical aspect of contingency operations without difficulty.

With the singular exception of Operation Just Cause, command and control problems have been a trademark of U.S. contingency operations over the course of the past two decades. Consider the following cases:

-15 May 1975: with President Ford literally calling the shots from the White House, 68 U.S. servicemen were killed, wounded, or lost in an attempt to rescue 33 civilian crewmembers of the SS Mayaguez. It was a confused operation and a harbinger of worse things to come.(9)

-25 April, 1980: U.S. JTF 1-79 returns from an aborted hostage rescue mission in Iran. The charred bodies of eight servicemen left behind were displayed on Iranian television like macabre trophies.(10) Operation Eagle Claw was a military failure and a political disaster for the U.S.

-23 October, 1983: an Islamic Hezbollah truck-bomb kills 241 U.S. Marines in Beirut. The ensuing investigation blamed the tragedy on an elongated and obscure chain-of-command.(11)

-25 October, 1983: U.S. JTF 120 invades Grenada to rescue

U.S. nationals and restore order. More U.S. servicemen die as a result of accidents or friendly fire than by hostile action.(12) But most telling were reports of poor interoperability; the perception that a U.S. Army officer had to use his AT&T credit card to request naval fire support remains indelible. Although Operation Urgent Fury was a strategic success, its shortcomings became a catalyst for a growing reform movement on Capitol Hill. In the words of a powerful U.S. Senator, "...the time is long past when we can tolerate these failings."(13)

Legislators intent on reforming the Pentagon, specifically the Joint Chiefs of Staff (JCS), voted into law the Goldwater-Nichols DoD Reorganization Act of 1986. One of the specific aims of the law was to improve the effectiveness of C2 in joint operations.

Goldwater-Nichols was implemented without much fanfare and has been in effect over the course of several contingency operations since its promulgation. The question arises, then, has Goldwater-Nichols actually improved C2 of joint operations?

By way of answering that question, this paper will trace the evolution in C2 of contingency operations in the wake of Goldwater-Nichols to determine its significance. Two case studies of contingency operations that span the implementation of Goldwater-Nichols have been chosen for analysis: Operations Urgent Fury and Just Cause. The intent of this monograph, though, is not to compare the two operations. To do so, in the words of General Maxwell R. Thurman, CINCSOUTH, would be

tantamount to comparing "apples and oranges".(14) Despite their dissimilarities, these contingency operations provide a framework for analysis of C2 at the operational level. Before examining these case studies, however, we must first arrive at a working definition of C2; we can then assess how well C2 functioned in Grenada. The next step is to examine the genesis of Goldwater-Nichols to determine its actual impact on C2 of joint operations. Following this section will be a brief analysis of Operation Just Cause, and a conclusion that summarizes the impact of Goldwater-Nichols. An examination of the relationship of operational level warfare as it pertains to contingency operations is addressed in Appendix A.

II. Defining Command and Control

" One of the least controversial things that can be said about command and control is that it is controversial, poorly understood, and subject to wildly different interpretations. The term can mean almost anything from military computers to the art of generalship; whatever the user wishes to mean."(15)

Prior to any discussion involving command and control, we must first clearly define this term because it obviously means different things to different people. First, command and control are actually two distinct processes, not one. Nevertheless, both are mutually dependent functions working in concert towards the same goal: mission accomplishment. How do they differ?

First of all, when trying to define "command", people often describe functions of command when they mean purposes; it is easy

to confuse the two. Functions associated with command include, among others, controlling the movement of forces and fires, directing maneuver, allocating resources, assigning priorities, and so forth. But these functions do not define the purpose of command. The purpose of command is linked directly to the role of the force commanded. The purpose of the command, therefore, is to control the outcome of the results of a battle. But command is not the mere management of results.(16) The successful commander must strive to be in a position to take advantage of opportunities to enhance his control of the outcome when such opportunities arise.(17) While the process is essentially directive in nature, it is also a function of leadership. The more effectively the commander disseminates his vision (intent) to his subordinates, the more likely his forces will achieve the desired results.

This mission-orientation is the essence of auftragstaktik, which, incidentally, does not mean the subordinate "does his own thing." All activity of the force must be directed toward one goal. To that end, the Bundeswehr Fuhrungs Akademie, has incorporated this concept into its operational art curriculum. The overarching principle of operational level command taught there is "...one commander; one objective, one idea (concept)."(18)

This concept of centralized direction that transforms into decentralized execution stimulates a unity of effort. As General William E. DePuy, USA, Retired, explains it, "The commander's

concept cascades down through his command and as each commander, in turn, embraces and articulates that concept in one of his own, which is adapted to the unique circumstances in his zone or sector. The concepts are nested like mixing bowls."(19) The better this concept is understood, the less requirement there is for control.

While "control" is inversely proportional to command, the two processes are indeed interdependent.(20) Because, once forces are committed to battle, the element of friction takes over and the commander's ability to influence the outcome is substantially impaired. Control, therefore, must be integrated with command.(21) Control provides a framework for the commander to synchronize the battle, thereby enhancing his influence. Control also provides the commander feedback, that is, a means by which to measure the results of his intent. He is also reliant upon control to gather information needed to make decisions regarding the activities of his subordinates. For example, whether he needs to reallocate resources, shift the main effort, or commit his reserve.

There are various means available for a commander to implement control. At his disposal are systems, to include communication networks, doctrine and training, orders, and graphics, to name a few. Whatever control measures a commander and his staff employ, they must have a specific purpose that contributes to mission accomplishment.(22)

While C2 is the process that leads to mission

accomplishment, units fight battles and units must have organization. Afterall, organization is really another form of control. And organization in particular is linked to successful command of joint operations.

A sound command organization of a contingency force should provide for several important tenets: unity of effort, centralized direction, decentralized execution, common doctrine, and interoperability. Unity of effort is a requirement for effectiveness and efficiency. Centralized direction is essential for controlling and coordinating the efforts of the forces involved. This is why dissemination of the commander's intent is so important; no one commander can personally supervise the specific actions of a myriad of units involved in fast-moving operations, shrouded by the fog of war. Common doctrine is a means of control because it helps reduce friction by establishing a mutual understanding, not only between a commander and his subordinates, but between the subordinate units themselves. Finally, command emphasis on interoperability creates the proper frame of mind among subordinate forces which will result in enhanced warfighting capabilities.(23)

Another key variable which impacts on the effectiveness of a command organization is the chain-of-command. Napoleon felt "Nothing is so important in war as an undivided command."(24) This maxim has been embodied in the timeless principle of war, unity of command. Another familiar axiom is that a chain-of-command be kept short and simple. When discussing fundamentals

of organization, Clausewitz observed that "...an order progressively loses speed, vigor, and precision the longer the chain of command it has to travel." (25) Clausewitz's advice is as applicable today even with the advent of tactical satellite and facsimile communications. Moreover, the requirement for an effective command organization was as important in October, 1983 as it was in October, 1805. Both years saw strategic campaigns waged on short notice.

III. A Case Study in Command and Control: Operation Urgent Fury.

"We were lucky in Grenada; we may not be so fortunate next time." Senator Sam Nunn (26)

Strategic background: the basic objectives of the 1983 U.S. intervention in Grenada were to protect U.S. Citizens and restore order. Of perhaps greater importance, however, was the geo-strategic importance of halting the transformation of Grenada into a Marxist stronghold sitting astride a major shipping lane in the Caribbean. (27) (MAP A)

Grenada's position as a close ally of the Soviet Union and Cuba appeared to be solidifying until an intra-party feud came to a head in October, 1983. After a heated confrontation over the political direction of the country, Bernard Coard, Deputy Prime Minister, abruptly seized power from Prime Minister Maurice Bishop. (28) Following a bloody clash with Bishop's supporters, the coup leaders brutally executed Bishop and seven of his close followers. It was this event, the climax of the struggle between

the two Marxist leaders that would tilt the U.S. into mounting its largest military operation since Viet Nam.(29)

The murder of Bishop and the imposition of a 24-hour shoot-on-sight curfew on Wednesday, 19 October, 1983, was the catalyst for the initiation of contingency planning in Washington. The potential for a violent internal power struggle in the wake of Bishop's death increased the danger to the 600 plus U.S. medical students in Grenada. This threat prompted the President to direct planning for a Noncombatant Evacuation Operation (NEO).(30)

Paralleling U.S. concern over the students, the heads of state of the Organization of Eastern Caribbean States (OECS) met on Friday, 21 October, to discuss the regional significance of the crisis in Grenada. The member states voted unanimously that the situation in Grenada posed a threat to security in the region. After extensive deliberations, the OECS agreed to join the U.S. in a combined military action that was to become Operation Urgent Fury.(31) What follows is an analysis of the operational level C2 of that operation.

First, the strategic objectives outlined by the National Command Authority (NCA) which became military missions, were consistent with our current doctrine for contingency operations:

- conduct military operations to protect and evacuate U.S. and designated foreign nationals from Grenada
- neutralize Grenadian forces
- stabilize the internal situation and maintain peace.(32)

Predicated by Grenada's geographical location, the Joint Chiefs of Staff (JCS) assigned overall responsibility for the mission to USLANTCOM, commanded by Admiral Wesley McDonald. From this point on, though, a series of operational planning errors began to unravel. First, there was already a plan in existence for such a scenario as Grenada: OPLAN 2360. That plan designated U.S. Forces Caribbean, a USLANTCOM sub-unified command, to execute the on-order mission, with the Commander, XVIIIth Airborne Corps earmarked as the JTF commander. But McDonald was not initially aware that OPLAN 2360 existed.(33) Instead, McDonald's staff started planning in a vacuum and created an operational level command only using Navy forces, designated JTF 120. McDonald appointed Vice Admiral Joseph Metcalf III, who normally commanded the Second Fleet, as CJTF 120.(34)

Metcalf had at his disposal a tactical naval amphibious force, designated TF 124, the nucleus of which was Amphibious Squadron Four. This force included the USS Guam, USS Trenton, USS Fort Snelling, USS Manitowoc, and USS Barnstable County. This last ship had the 22nd Marine Amphibious Unit (MAU) embarked, a combined arms task force comprised of Battalion Landing Team (BLT) 2/8 and a medium helicopter squadron.(35) For a potential NEO mission, this force was probably adequate.

However, late on 22 October, in response to Presidential direction, JCS advised CINCLANT of two significant developments. First, based on the OECS request, CINCLANT's mission had been expanded to include the restoration of order. Second, the

operation must begin not later than daybreak, 25 October. These revelations left LANTCOM and JTF 120 planners less than 48 hours to complete planning, assemble and position forces to execute the operation.(36)

If the expanded mission and accelerated time schedule did not cause enough consternation, JCS had another surprise for CINCLANT: the mission would now be a joint operation with the Army. Up to this point, CINCLANT had envisioned only a unilateral Navy-USMC effort in the Point Salines-St. Georges area of the island.(MAP B) But a reappraisal of the threat by JCS revealed that JTF 120 needed more forces if they were to seize all decisive points simultaneously.(37) JCS now directed CINCLANT to assign the objectives in the Point Salines area to Army forces. TF 124 was now only responsible for objectives in the north at Pearls and Grenville. This change split the island into two separate areas of operation. Accordingly, a boundary was drawn following the trace of the road connecting Grenville on the east coast and St. Georges on the west coast.(MAP B)

The concept of the operation further evolved into two phases. Phase 1 would entail two simultaneous landings early on the morning of 25 October. TF 124 Marines would land at Pearls using a combination of air assault and amphibious forces using LVT amphibian assault vehicles. Simultaneously, two understrength Army Ranger battalions, part of TF 123 commanded by MG Richard Scholtes, would airdrop or airland, depending on the tactical situation, at Point Salines airfield. The 1st Battalion

(Ranger), 75th Infantry, (1/75) would move directly to the True Blue Campus, then secure and evacuate the students there. (MAP B) Concurrently, other TF 123 elements would be conducting special operations missions against a variety of other targets. (38) Chief among these was the safeguarding and evacuation of Sir Paul Scoon, Governor-General of Grenada. His leadership was essential for restoring stability after the cessation of hostilities. (39) Phase 2 would commence with the arrival on D-Day of TF 121, the Division Ready Force 1 (DRF-1), from the 82nd Airborne Division. TF 121 would land at Point Salines, relieve the Rangers, and then assume peacekeeping duties to restore order in cooperation with the Caribbean Peacekeeping Force (CPF). (40) In theory, this was a simple enough concept; but no plan can succeed without proper coordination.

However, because of overriding OPSEC concerns and a hastily planned organization for combat, even routine coordination between the various committed forces proved cursory, and in some cases, was not even conducted. At a joint planning conference in Norfolk on Saturday, 22 October (D-3), many key personnel were not in attendance, including the MAC representative, BG Robert Patterson. By the time he finally arrived, both the JSOC and 82nd Airborne Division representatives had departed, having arranged the MAC aircraft allocations off-line. (41) Furthermore, OPSEC concerns also limited the number of personnel attending coordination meetings to a few key people. Unfortunately, these restrictions precluded the participation of representatives from

key functional areas such as communications and fire support. In the case of the 82d, they would end up deploying without having obtained essential information on the non-Army fire support assets available. Procedures for requesting naval gunfire, communications channels to be used, Fire Support Element (FSE) coordination with the Supporting Arms Coordination Center (SACC), and availability and types of munitions were not resolved until well into the operation.(42) Likewise, the Navy was not represented at any of the TF 123 planning sessions, nor when Navy pilots received their ground support mission briefings, were Army or Air Force TACP personnel present.(43)

Further confusion arose because of a lack of a common doctrine. As an example, LANTCOM planners were unfamiliar with Army airborne operations and confused the 82nd's N-Hour sequence (notification and marshalling procedures for deployment based on a set 18-hour sequence) with actual deployment times to Grenada. Furthermore, the JTF 120 commander was not aware that the Army not only had the capability, but routinely conducted night airborne operations. Metcalf intended initially for the Rangers to drop during daylight for safety reasons.(44)

A more serious shortcoming in the planning process, however, was the failure of senior commanders to ensure subordinate commanders fully understood their concept of the operation. At the initial planning conference in Norfolk on Saturday, 22 October (D-3), the 82nd's G-3, LTC Frank Akers, returned to Ft. Bragg without a clear understanding of the division's overall

objectives. He had specific concerns as well, to include when the division's troops were supposed to land in Grenada; how they would link up with the Rangers; how they were to cooperate with the Marines; what was the enemy situation; and what control measures were in effect?(45)

Back at Ft. Bragg, LTC Akers briefed his commander, MG Edward Trobaugh, who then alerted his Division Ready Brigade (DRB) Commander and a few key members of his staff in the event he needed a larger force than initially planned for. This action was to prove fortuitous.(46) Even after the final CINCLANT meeting, where he met his fellow tactical commanders for the first time, MG Trobaugh was still unsure of his mission. He also relayed his uneasiness about the operation's vague support arrangements to his superior, LTG Jack Mackmull, Commander, XVIIIth Airborne Corps.(47)

Although LTG Mackmull was not invited to participate in any of the planning, he sensed that his corps would assume a much larger role than previously envisioned. Accordingly, LTG Mackmull directed his staff to become fully operational and support TF 121 in every way possible.(48)

If the tactical commanders were unclear of their mission, it was primarily because JCS and CINCLANT failed to plan adequately at the operational level of war. As the political objectives of the operation became more complex, the relationship between political ends and military means became less clear. JCS and CINCLANT planners concentrated on tactical objectives for assault

forces making a forced entry, but gave little thought to what JTF 120 forces would or should do after they neutralized the Cuban and Grenadian Peoples Revolutionary Army (PRA) forces, and how they would help restore a democratic government.(49) Moreover, as a combined operation, the planning was also incomplete.

Despite the political importance of the Caribbean Peacekeeping Force (CPF) in lending legitimacy to the invasion, planning for its employment was superficial. Ostensibly because of OPSEC concerns, no one included the CPF in the planning process. As a result, when the CPF arrived in-country on D-Day, they had no idea what their mission was, nor did the U.S. combat forces at the airhead with whom they were to cooperate.(50)

LANTCOM planners also paid scant attention to other politically sensitive issues such as PYSOPS, prisoners of war, Soviet Bloc diplomatic personnel, refugees, public affairs, and civil affairs. This lack of foresight and attention to detail was to place the burden for resolving these issues directly on the shoulders of commanders engaged in directing combat operations.(51)

The major fault in planning a C2 organization for the operation, however, was the artificial command structure which was to hamper virtually every facet of the operation. Ad hocism prevailed. As previously mentioned, the 82nd's parent headquarters was virtually excluded from the planning and execution of the operation for purely arbitrary reasons.(52) Ironically, the XVIIIth Airborne Corps was far better organized,

resourced, and trained for this mission than the predominantly naval joint task force headquarters. However, there were even more serious problems in the command organization.

Despite compelling reasons to appoint a single ground component commander, CINCLANT and CJTF 120 organized a C2 structure better designed to keep the various Service's forces at odds than to ensure cooperation.(53) This arrangement was bound to hamper combat operations. At the heart of the problem was the fact that there would not be a single ground force commander ashore responsible for coordinating and synchronizing the operations of the various subordinate commands in combat. Instead, Metcalf was supposed to control the overall operation while aboard the USS Guam.

But Metcalf's ability to control his forces was hamstrung by poor organization and staffing, with minimal representation from the various Services. There was no air component commander on board, only the MAC LNO, an Air Force lieutenant colonel, and the Army representative had only a remote affiliation with the Army units involved. Much to his surprise, FORSCOM had tasked MG H. Norman Schwarzkopf, commander of the 24th Infantry Division, to be the deputy commander of JTF 120. Again, because of OPSEC concerns, Schwarzkopf's staff was limited to only two majors. Moreover, there were no Army fire support coordinators on board, and the Joint Intelligence Center had no Army assets; it was composed entirely of Navy and Marine personnel. According to MG Schwarzkopf, "You never really had a joint staff."(54)

Such were the C2 arrangements in place at H-Hour. To assess the effectiveness of JTF 120's C2 organization, it is worthwhile to briefly recount the salient events of the operation chronologically. This will help illustrate how the planning and C2 organization affected the operation.

The invasion of Grenada was set for 0500 hours, 25 October. However, friction and the fog of war literally delayed both assault waves. In the north, TF 124 began its air assault to seize Pearls airfield 20 minutes behind schedule due to ground fog. Meanwhile, the amphibious force, CO.G, 2/8th Marines, remained on board the USS Manitowoc because beach conditions were unsuitable for landing LVTP's. As events were to unfold, however, this apparent misfortune was to prove fortuitous.(55)

Meanwhile, the Army Rangers of TF 123 were also behind schedule because conflicting situation reports caused them to first rig, de-rig and then re-rig their parachutes for the jump. By the time the Rangers finally dropped at 0520 hours, it was daylight; Cuban and PRA anti-aircraft gunners met them with a fusillade of fire. After the lead C-130 dropped its stick, the next two aircraft veered off and aborted their drop because of the intense anti-aircraft fire. AC-130 Spectre gunships suppressed the enemy ground fire, and the remaining Rangers continued to jump in a piecemeal manner, up until 0710 hours. What should have been a five minute operation lasted 90 minutes.(56)

Although enemy resistance in the Point Salines objective

area was much heavier than expected, the Rangers gradually expanded the airhead, and by 0850 hours, 1/75 had rescued the students at the True Blue Campus. But the tactical situation was tenuous at best, and Metcalf realized he had two very different actions on his hands.

TF 124 had by now seized its initial objective at Pearls and was steadily advancing into Grenville against token resistance. In the St. Georges area, however, Metcalf was now faced with a dilemma. Recall that one of Metcalf's primary tasks was to rescue Sir Paul Scoon. But the Governor-General was trapped inside his residence along with 22 Navy SEALs from TF 123 sent to ensure his safe passage; the SEALs had overlooked the need for anti-tank weapons and were outgunned by a superior PRA force equipped with BTR-60PB armored personnel carriers. Although Spectre was available, the danger of collateral damage concerned Metcalf. And with the Rangers decisively engaged at Point Salines, Metcalf considered his situation "very serious." (57)

At this juncture, Schwarzkopf recommended that Metcalf divert the Marines, still embarked on the USS Manitowoc, to perform a flanking maneuver north of St. Georges, landing at Grand Mal. (MAP C) The Marines would then envelop the PRA forces from the rear and relieve the pressure on the trapped SEALs. (58) In essence, Company G, 2/8th Marines had become a reserve by default. By 2000 hours, D-Day, Company G, 2/8th Marines, reinforced by amtracs and tanks, was ashore and advancing on St. Georges. Company F, 2/8th Marines later air assaulted into Grand

Mal at 0300 hours (D+1). Thus organized, TF 124 (-) attacked at 0400 hours into St. Georges proper. By 0700 hours, the Governor-General and his would-be rescuers were safe.(59) The flexibility JTF 120 gained by having the Marines remain afloat, albeit unintentionally, should be a lesson for future contingency operations.

Meanwhile, back at Port Salines, the leading elements of the second operational wave of forces had arrived at 1405 hours, D-Day. MG Trobaugh and his division's Initial Ready Company (IRC) walked off the ramp of their C-141's into a maelstrom. Alarmed by the unexpected level of resistance, MG Trobaugh sent his now famous request, "Keep sending battalions until I tell you to stop."(60)

Within a few hours, though, problems stemming from the flawed C2 arrangements surfaced. At 1900 hours, Metcalf directed Trobaugh (CTF 121) to assume control of the two Ranger battalions from TF 123. Although all three unit's CPs were in the same airhead, the hand-off went poorly. The commander of 2/75 was not told of the change until 2230 hours that night, while the commander of 1/75 was not made aware of the fact until 0630 hours D+1.(61) As a result of this disconnect, TF 121 lost much valuable planning and coordination time.

Daybreak D+1: JCS notified Metcalf for the first time that there were more students located at the Grand Anse Campus.(MAP D) Moreover, the Cubans and PRA had not capitulated as predicted. Metcalf gave TF 121 the mission to conduct the belated rescue

operation; MG Trobaugh in turn assigned the mission to 2/75. Because the PRA had Grand Anse Campus nearly surrounded, an air assault option would be faster, achieve better surprise, and reduce risk to the students. But the only helicopters readily available belonged to TF 124; and it was only after a heated debate that the Marines agreed to fly the mission. Nevertheless, it was a near perfect operation. Within 26 minutes, the Rangers safely evacuated 224 students, with no friendly casualties.(62) JTF 120 had accomplished another of its missions, but there remained more enemy forces yet to deal with.

At 0430 h , D+1, the 82d's 2/325 attacked the Cuban compound at Calliste.(MAP D) After a stiff firefight, 86 Cubans walked out and surrendered, leaving 16 dead comrades inside. Two paratroopers died in the action and 10 were wounded.(63) The fall of Calliste was a turning point; organized Cuban and PRA resistance had finally collapsed. From this point on, U.S. forces encountered only sporadic sniping and other minor actions, although casualties continued to mount.

D+2: At approximately 1330 hours, JCS bypassed intermediate echelons of command and directed TF 121 to attack the PRA camp at Calivigny before nightfall.(MAP D) The objective of this operation or the rationale for its explicit urgency remain unanswered, although it appears that political considerations were dictating tactical objectives. Moreover, while previously identified as a major PRA training site, it was unlikely that the camp was still occupied. Nevertheless, JCS was adamant that

TF 121 capture Calivigny Barracks before nightfall.(64)

In a hastily planned and organized operation, 2/75 Rangers, flown by exhausted crews from the 82d's aviation battalion (the Marines had refused to fly any more air assault missions for Army forces), lifted off on an ill-fated mission. Within 20 seconds of touchdown, three UH-60's had crashed, killing three Rangers and severely injuring several others.(65) The Rangers found the camp deserted.

The disastrous mission at Calivigny marked the last significant action in Grenada. The following day, 28 October (D+3), the Marines of TF 124 linked up with paratroopers from 2/325 at Ross Point at 0800 hours.(MAP D) From that time on, only minor operations were conducted to locate arms caches and fugitive PRA members up until 2 November. On that date, JTF 120 was disestablished.(66)

While the outcome of Urgent Fury was never really in doubt, the cost was. JTF 120 lost 18 servicemen KIA, 115 WIA, with 28 non-battle fatalities; total Special Forces Operational Detachment (SFOD) "Delta Force" casualties remain classified.(67) What had been touted as a "piece of cake" by JCS/CINCLANT planners turned out to be a bloody lesson in the complexities of contingency operations in a joint environment. If, as stated before, that C2 is the most important aspect of contingency operations, what lessons can we distill from Operation Urgent Fury?

Unity of Command: while the chain-of-command was doctrinally

sound down to the JTF level, VADM Metcalf and his subordinate commanders were nevertheless plagued by micromanagement and outright circumvention of the chain-of-command from higher. Below the JTF level, there was a diffusion of control. The problem, identified previously, was a direct result of the ad hoc command structure. Two examples are illustrative. The first is the poorly coordinated hand-off of the two Ranger battalions from TF 123 to TF 121 on D-Day. The result was a 15 1/2 hour period when there was no consensus on who commanded who in the airhead. Second, while the Marines begrudgingly provided helicopter support to TF 121 for the Grand Anse rescue mission on D+1, they refused to fly the air assault mission on Calivigny Barracks on D+2. A single ground force commander would have had the requisite authority to allocate sufficient aviation assets for the mission without equivocation.(68)

Control: inadequate communications was the greatest single constraint on effective control of JTF 120 during Operation Urgent Fury. From the very outset of the operation, problems arose because of poor planning and coordination. Inadequate in-flight communications were in large part responsible for the contradictory in-flight instructions given to the Rangers regarding the status of the Point Salines airfield. Further, by the time CJTF 120 learned that the Rangers would miss their TOT, it was too late to recall the air assault element of TF 124. This not only prevented a simultaneous landing in both objective areas, it also alerted the PRA defenders in the south.(69)

Moreover, CJTF 120 never established adequate communications with his subordinate commanders. Metcalf relied all along on an overloaded JSOC tactical satellite net to communicate with TF 123. However, when TF 121 arrived, there was no way for Metcalf and Trobaugh to communicate. Furthermore, Metcalf violated fundamental communications doctrine by placing the onus on his subordinate to establish communications with higher.(70)

The haphazard coordination (the responsibility of CINCLANT and CJTF 120) that occurred at Norfolk, constantly plagued the operation. As an example, on D-Day in the Point Salines airhead, CTF 123 and CTF 121 had to coordinate, under fire, the problems of link-up, communications, command of the airhead, control of fires, and maneuver.(71) Most of these issues should have been coordinated in Norfolk.

Poor coordination and incomplete liaison further increased friction, and heightened the risk associated with link-up operations by joint and combined forces. In fact, the two major ground forces, TF 121 and TF 124, never exchanged liaison officers.(72) Nor did any of the ground forces exchange frequencies, callsigns, and recognition signals for any of the link-ups (TF 121 with TF 123 on D-Day; TF 121 with TF 124 on D+3; or TF 121 with the CPF). The results could have been disastrous. When the first C-130 load of CPF landed at Point Salines, the commander of 2/75th mistook them for PRA-Cubans.(73) Under these conditions, it was only the superior fire discipline of the soldiers on the ground that prevented fratricide.(74)

Ironically, Metcalf sought to reduce the chances of fratricide through micromanagement. So unsure was he of ANGLICO-destroyer communications, Metcalf retained personal control of all naval gunfire missions. As a result, not one round of naval gunfire was fired in support of the Rangers and the 82d, although two destroyers were on station; Metcalf cited safety concerns because friendly aircraft were near the target areas.(75) Once again, he had chosen to err on the side of caution because of his unfamiliarity with joint doctrine.

Nevertheless, fratricide did occur from supporting fires; a direct result of interoperability shortcomings. On D+2, an ANGLICO team, without any means of communicating directly with Army units in the area, called in an A-7 strike on a suspected sniper location in a small building. Tragically, the A-7s attacked the 82nd's 2nd Brigade CP with 20MM cannon fire, wounding 17 paratroopers, one of whom later died.(76) Worst of all, the tragedy was avoidable; the ANGLICO team had missed its scheduled deployment with the 82d and failed to effect coordination once on the ground.(77)

There were other serious interoperability problems, to include logistics. After an aborted raid on Richmond Hill Prison, wounded SFOD personnel and their supporting helicopter crews languished onshore for three and a half hours before being evacuated to the USS Guam.(78) The cause of this inexcusable delay was twofold. First, the Navy would not allow Army UH-60 pilots to land on a seaborne platform because they were not

"qualified". Second, the Navy was unwilling to refuel the UH-60's without a fund cite!(79)

Despite all these shortcomings, Urgent Fury was clearly a strategic success. However, the aforementioned problems of joint interoperability, especially the C2 aspects, did not go unnoticed by a critical Congress. With the vision of charred helicopter hulks and corpses of American servicemen lying in the Iranian desert still vivid, many lawmakers felt it was time for a change.

IV. The Goldwater-Nichols Act of 1986

"...the U.S. Armed Forces have serious problems conducting joint operations." Senator Sam Nunn, Chairman, SASC (80)

In the aftermath of Urgent Fury, both praise and criticism were forthcoming. While some hailed the operation as a vindication of a revitalized Armed Forces, others saw it as a manifestation of long festering problems at the highest levels of military leadership.

Among the more notable spokesmen of a bipartisan group of critics were Senators Barry Goldwater and Sam Nunn. In a speech before the committee for Congressional Oversight of National Defense, Senator Nunn praised the performance of the servicemen involved in Urgent Fury. But he also cut to the heart of the issue of joint operations. "One cannot help but wonder," he said, "what would have happened if the opposition had been better armed, organized, or larger." (81) Nunn specifically singled out the joint planning and execution of the operation as particularly

flawed. He cited Service after-action reports, which:

. . . reveal a woeful lack of inter-service coordination in planning the operation. Planning sessions were held separately, and Service components were not invited to attend. Furthermore, the Services demonstrated a remarkable lack of knowledge of how the other operates... we have seen the dangers posed by the lack of a truly unified command.(82)

Senator Nunn's comments accurately described a fundamental flaw, not just with Urgent Fury, but a more systemic problem within the hierarchy of the DoD: unity of command was missing. And if the Services were expected to conduct joint operations effectively, they had to answer to only one commander. But this had not been the case, and confusion prevailed.

According to Senator Nunn, "many CINC's of the unified commands have complained that they are not certain whether their boss is the Chairman of the Joint Chiefs or the SECDEF. In a crisis, who do they talk to?"(83) Senator Nunn obviously understood the need for a clear chain-of-command and division of responsibilities. But why was such a fundamental axiom so difficult for the Services to adhere to? Part of the problem was institutional in nature.

The institutional impediment stems from a symptom referred to as the "Service maintained wall."(84) But this syndrome is not particularly unique to our armed forces. One only needs to examine the intensely parochial and divisive rivalries between the British infantry and armor branches during WWII to find a similar, although intra-service, parallel.

The source of the problem in our Services, according to LTG John H. Cushman, USA, Retired, is an inherent one created by "...factors such as pride, loyalties, and shared beginnings".(85) In and of themselves, unit and service pride can be a source of great strength at lower levels of command. However, when manifested at higher levels, and especially so in joint operations, they can be a source of weakness.(86)

Likewise, military pride also impacts on doctrine. Military doctrine is essentially a set of shared beliefs that influence the way the organization and its members think and act.(87) Not surprisingly, then, each service has a doctrine based on both heredity and environment.

However, the combined effect on joint operations of these varying Service doctrines, according to LTG Cushman, has been "detrimental." This occurs because the prevalent attitudes, when misapplied, weaken the cohesion, integration, and effectiveness of joint operations in preparing for battle and during the battle itself.(88) This obstinance or "cussedness," which General Cushman describes, has serious ramifications in combat, and helps explain the Navy's recalcitrance to refuel Army aircraft, and the Marine's refusal to fly in support of Army missions in Grenada.

Legislators pushing for military reform also correctly diagnosed the "service wall" for what it was. Again citing Senator Nunn, "The Services dominate the unified commands. We have unified commanders, but divided commands."(89) The aim of the reform legislation, therefore, was to tear down the "service

wall". To achieve this goal, Congress felt laws were needed that would clarify the chain of command, centralize authority at the JCS level, and increase the authority of the combatant commanders over their service components.

Efforts to reorganize the Department of Defense (DoD) to achieve unity came to fruition in the 99th Congress. In April, 1986, President Reagan urged Congress to expedite pending JCS reform legislation. The House of Representatives passed the Joint Chiefs of Staff Reorganization Act of 1985, and sent it to the Senate in October.(90)

The Senate expanded the scope of reorganization and titled their bill after its guiding spirit, the Barry Goldwater Department of Defense Act of 1986, and approved it by a vote of 95-0 in early 1986. A few months later, a House-Senate Conference Committee resolved the differences between the two bills, and on 1 October, 1986, President Reagan signed the Goldwater-Nichols Department of Defense Reorganization of 1986 into law.(91)

Despite a lack of fanfare, Goldwater-Nichols became one of the most important pieces of defense legislation in over 40 years. The bill essentially elevated the Chairman of the Joint Chiefs (CJCS) to the senior military officer responsible for providing advice to the President, SECDEF, and the National Security Council (NSC). This move eliminated the interservice roadblock, tantamount to a veto, that the corporate heads of the four Services could erect anytime one of them felt slighted.(92)

Before, the CJCS had little authority to resolve disputes over strategic guidance, the unified command plan, command missions, commander's authorities, and doctrine for operational employment. If the CJCS could not resolve the dispute, he had little recourse but to appeal to the SECDEF if he wanted to override the dissension among his colleagues.(93)

Accordingly, the framers of Goldwater-Nichols recognized that the first step in putting the joint house in order was to increase power for the CJCS. Effective C2, afterall, requires centralized direction. Although not in the formal chain of command, the chairman was now tasked with "assisting the President" and SECDEF in providing for the strategic direction of the Armed Forces. He also assumed responsibility for contingency planning and preparedness, as well as for joint doctrine, training, and education.(94) Furthermore, where the Chairman's accountability was previously uncertain, Goldwater-Nichols made it explicitly clear that he would be held accountable for another "Pearl Harbor".(95)

Another goal of Goldwater-Nichols was to improve the operational effectiveness of the combatant commanders by increasing their control over Service component forces placed under their command. Previously, the CINC's responsibility for mission performance did not match his authority to meet that responsibility. Not having sufficient means, read command authority, to accomplish one's mission had become an accepted way of doing business in the joint arena.(96)

Goldwater-Nichols however, changed this dichotomy. Regarding responsibility and authority, the intent of Congress was:

- "to place clear responsibility on the commanders of the unified and specified combatant commanders for the accomplishment of missions assigned to those commands;"
- "to ensure the authority of the commanders of the unified and specified combatant commanders is fully commensurate with the responsibility of those commanders for the accomplishment of missions assigned to their commands."(97)

There was now little room for ambiguity regarding a CINC's role :

<u>CINC's</u>	<u>Before G-N</u>	<u>After G-N</u>
Responsibility	Only inferred	Explicit
Accountability	Implied	Explicit
Authority	Not addressed	Explicit
Capacity	Not addressed	Fairly Specific (98)

These changes were clearly substantive, but could Congress seriously hope to legislate improved joint operations? An answer was not long in coming, and the bill was put to the litmus test in the volatile Persian Gulf. Once again, the issue was Service "cussedness"; two cases are illustrative.

The first case involved a controversy surrounding the use of helicopters to thwart Iranian minelaying operations. The Navy wanted Marine aviation for the role, and objected to having Army

helicopters land on their ships. Admiral William J. Crowe, then CJCS, intervened to settle the dispute. In his estimation, the Army SOF AH-6 "Little Bird" helicopters were much better suited for the mission, so he told the Navy to accommodate them in no uncertain terms. This is in stark contrast to the Desert One mission where the Navy had won its argument to use USMC helicopters over Air Force Pave-Lows.(99)

A second incident requiring CJCS intervention involved a boundary dispute between CENTCOM and PACOM. The boundary in question ran from the entrance of the Persian Gulf east to India. CENTCOM had responsibility for military operations north of the line, while PACOM had responsibility for operations south of the line. But aircraft carriers operating in support of CENTCOM, and CENTCOM's logistics base were located in PACOM territory. Accordingly, as planes and ships crossed the boundary, they had to change frequencies and receive orders from two different headquarters, often during crisis situations. The logical solution would have been to adjust the boundary, but CINPAC was unwilling to concede. General George B. Crist, CINCCENTCOM, therefore appealed to the CJCS. Before Goldwater-Nichols, the CJCS did not have the authority to move the boundary; now he did. Admiral Crowe not only moved the boundary, he directed General Crist to establish Navy Task Force Middle East, which commanded all the Middle East forces, both in the Gulf and the Indian Ocean. Admiral Crowe described the new command relationship as "the shortest chain... we have had in any major crisis."(100)

The initial indicators of the effectiveness of Goldwater-Nichols, so far, were favorable. But the Persian Gulf crisis was a very context specific scenario. To arrive at a better assessment of its effectiveness, a more realistic test would require a scenario similar to Grenada: a contingency operation that involved the strategic deployment of ground combat forces with the mission to provide security for U.S. citizens, neutralize a hostile power, and install a legitimate government. Enter Panama.

V. A Case Study: Operation Just Cause

"It was probably the best-conceived military operation since World War II." General Edward C. Meyer, USA, Retired (101)

Drawing a comparison between Operations Just Cause and Urgent Fury must be done with circumspection. Many of the conditions that existed in Panama on 20 December, 1989, would have been a luxury the Urgent Fury planners and operators could only have wished for. Napoleon once told his marshals they could ask him for anything but more time; that was one of the major differences between the two operations. Urgent Fury planners had barely two days to prepare a plan, while Just Cause planners had two months to revise an existing plan.

Urgent Fury was an entirely forced entry operation; Just Cause involved a strategic deployment to conduct a forced entry in coordination with operations by forward deployed forces. Likewise, Just Cause planners were able to preposition logistic

assets and weapons systems required for the operation. Intelligence was almost non-existent in Grenada. In Panama, there were few surprises; planners had identified the enemy order of battle, dispositions, and center of gravity. While Urgent Fury commanders had to conduct coordination under fire, Just Cause forces had time to coordinate extensively and rehearse most major missions for the operation. In-country forces practiced their missions using "Sand Flea" exercises under the guise of exercising treaty provisions, while CONUS forces rehearsed their missions on realistic mock-ups.(102) JTF 120's major maneuver elements were Army and USMC; JTF South was primarily an Army force. Despite these many dissimilarities, however, an analysis of Just Cause docs provide a vehicle to assess the impact of the Goldwater-Nichols changes on C2 at the operational level.

Strategic background: in stark contrast to the volcanic events in Grenada, Operation Just Cause marked the culmination of two years of steadily deteriorating relations between the U.S. and Panama, beginning in February, 1988. The turning point in the crisis that led to the eventual U.S. intervention occurred on 15 December, 1989, when Noriega declared himself "maximum leader" and declared that a state of war existed with the United States.(103) On the following day, PDF soldiers accosted a car load of U.S. officers at a roadblock and killed a U.S. officer as the American servicemen tried to escape. An outraged President Bush said "Enough is enough," and decided the following day to invade Panama.(104)

In his estimation, President Bush felt the U.S. had legal justification for the intervention for two reasons. First, the U.S. had a right to protect the lives of its citizens abroad (as in Grenada). Second, the U.S. had a right conferred by the 1979 Panama Canal Treaty to protect the waterway.(105) Once the decision was made to use military force, a strategy for its employment soon followed.

The NCA established four strategic objectives for the operation:

- protect American lives
- safeguard the integrity of the canal
- restore democracy in Panama
- apprehend and bring Manuel Noriega to justice (106)

The objectives translated into military missions of: securing U.S. installations; neutralizing the PDF; physically securing the Panama Canal and key infrastructure nodes; and isolating Panama City from outside reinforcements. This last mission was essential if U.S. forces were to capture Noriega.(107) With the objectives established, the NCA needed a means to achieve them.

As with the crisis in Grenada, JCS assigned the mission in Panama to the CINC with geographic responsibility; in this case, USSOUTHCOM commanded by General Maxwell Thurman. CINCSOUTH hand-picked LTG Carl Stiner, Commander, XVIIIth Airborne Corps, to establish and command JTF South to execute the mission. Immediately upon receipt of the mission, LTG Stiner flew to

Panama to conduct a personal reconnaissance. A brief over-flight of the Comandancia convinced LTG Stiner that tanks and Apache gunships were essential for the type of operation he envisioned.(108) By D-Day, JTF South had successfully infiltrated four Sheridan tanks and six AH-64's from Fort Bragg into Panama. It was also during this period of intense planning in mid-October that Generals Thurman and Stiner decided to include strategically deployed forces from CONUS in the operation to achieve an overwhelming correlation of forces.(109)

In contrast to Urgent Fury where LANTCOM planners focused on terrain objectives, the objectives in Panama were a mix of force and terrain objectives; the latter designed to protect key installations and isolate the battlefield. In this respect the operational planners were at a distinct advantage over their predecessors in being able to identify the enemy center of gravity.

Although Noriega's capture was central to the entire operation, Just Cause planners correctly identified the PDF as the enemy center of gravity. They reasoned that even if Noriega was taken out of power by other means, there was no shortage of corrupt subordinates to fill the vacuum. "Decapitating" the PDF, therefore, must be the main effort. Furthermore, the PDF's reaction to the aborted coup on 3 October assisted Just Cause planners by revealing their most probable course of action in a crisis.(110) Once the enemy center of gravity is identified, operational planning logic dictates that you next identify the

enemy's vulnerabilities.

Just Cause planners decided to attack the PDF in their billets "...in one fell swoop in the middle of the night." (111) This concept adhered to principles espoused by Clausewitz, who considered this type of operation as "special" in nature. Clausewitz said the attacker's aim in this type of operation should not be considered as "...an assault on an individual billet, but the prevention of the enemy's ability to concentrate. An attack on an army in billets is therefore an attack on a dispersed army." (112) This maxim dovetailed precisely with the intent of the Just Cause planners.

But PDF units were widely dispersed among camps throughout Panama, so it was essential that attacking forces be task organized in a manner that provided CJTF South the ability to conduct simultaneous strikes. Accordingly, LTG Stiner formed six major sub-elements: Task forces Bayonet, Red, Black, Pacific, Atlantic, and Semper Fidelis. He then targeted these forces against 27 individual objectives. (113)

TF Bayonet was a heavy-light mix of forward-deployed light infantry battalions from the 193rd Brigade, and a reinforcing mechanized battalion (4/6th Infantry from Fort Polk). TF Bayonet included sub-elements, among them TF White, a SEAL team from Naval Special Warfare Group 2. The SEALs' mission was essentially to deny Noriega two avenues of escape out of Panama City by sabotaging PDF patrol boats and interdicting Paitilla Airport. (114)

The primary mission of TF Bayonet, though, was the capture of PDF headquarters in Panama City, better known as the Comandancia, the Presidential Palace, and other key PDF facilities, to include Fort Amador.(MAP E) TF Bayonet also had security missions at the U.S. embassy, USSOUTHCOM headquarters at Quarry Heights, and USARSO headquarters at Fort Clayton.(115)

The nucleus of Task Force Red was the 75th Ranger Regiment, deploying from CONUS. TF Red would assault its objectives employing two sub-elements; TF Red-T (1/75th reinforced with one company from 3/75th) would airdrop onto Tocumen PDF air base and Torrijos International Airport. Its mission was to neutralize the PDF 2nd Infantry Company stationed there and secure the airfield for follow-on airborne operations by TF Pacific, a brigade sized element from the 82nd Airborne Division.(116)

TF Pacific was to relieve the Rangers, capture PDF positions at Fort Cimmaron, and block eastern approaches into Panama City. It is worthwhile to note at this juncture that no airland operations were planned for the 82nd. One of the key lessons learned from Urgent Fury was that airdrop operations are a significantly faster method of force buildup in an airhead than by airlanding.(117)

The remaining Rangers, 2/75th and 3/75th (-), designated TF Red-R, were to airdrop simultaneously on another airfield at Rio Hato, 90 kilometers northwest of Panama City. Their mission was to neutralize the 6th and 7th PDF Rifle Companies stationed there.(118)

TF Black, primarily forward deployed SOF units from 3/7th SFG, had the multiple missions of performing reconnaissance and surveillance (R&S) at key targets and conducting blocking missions to isolate PDF forces. One of their primary objectives was the key chokepoint at the Pacora River bridge; its seizure would prevent Battalion 2000 from reinforcing PDF elements at the Tocumen-Torrijos airport complex.(119)

Also assigned a blocking mission was TF Semper Fidelis, a USMC light infantry and an armored infantry company equipped with LAV's. The Marines were to block the western approach to Panama City by seizing and securing the Bridge of the Americas. Altogether, about 700 Marines, all in-country at H-Hour, would take part in the operation.(120)

TF Atlantic would consist of pre-positioned CONUS forces, a mix of the 7th LID and paratroopers from 3/504th scheduled to undergo training at the JOTC at Fort Sherman. TF Atlantic had the following missions: neutralize the PDF naval infantry company at Colon; secure Madden Dam; and assault Gamboa Prison to liberate political prisoners, thereby denying the PDF a potential bargaining tool.(121)

JSOC forces had the mission of capturing Noriega himself. Since Noriega was known to move frequently for security reasons, the SOF teams had multiple objectives throughout Panama. Such was the organization for combat prior to D-Day. As its title implies, the plan was now contingent upon specific actions to trigger it. Noriega and the PDF provided the catalyst on 16

December. After Presidential approval, JCS issued the execute order at 182325Z Dec 89.(122)

Centralized direction and decentralized execution characterized the operation from the outset. General Thurman provided LTG Stiner maximum latitude to carry out the operation, buffeting interference from above. He communicated up the chain, while LTG Stiner communicated down the chain. Furthermore, the CJCS made a tacit agreement with CINCSOUTH not to ask for a detailed situation report until H+4.(123) H-Hour was set for 0100 hours, 20 December, with the intent of catching the PDF asleep. However, the operation was apparently compromised by several possible sources, to include the live, televised reporting of deployment activities in CONUS. Generals Thurman and Stiner confirmed that the invasion had been compromised based on intercepted PDF radio traffic. At least as early as H-3, PDF units had been alerted and ordered to man defensive positions. This revelation prompted the two generals to attempt to move H-Hour up as much as possible. After deliberating, they moved H-Hour up 15 minutes.(124) By this time, however, U.S. forces were already in motion.

Preassault operations were an instrumental part of the plan. TF Black SOF teams infiltrated into the jungles and positions overlooking key nodes to perform assigned R&S missions. Other missions were less passive. At a key target, the Pacora River bridge, a 3/7 SOF team air assaulted onto their objective just in time to knock out the lead vehicle of a PDF reaction force.

Providentially, an AC-130 Spectre gunship arrived overhead and opened fire on the remaining vehicles in the convoy, destroying six trucks; the survivors retreated back to Fort Cimmaron.(125) This isolated action is but one example of the importance of synchronization to the plan to introduce strategically deployed forces from CONUS.

Indeed, a major facet of Operation Just Cause entailed the largest night airborne operation since Normandy, with mass parachute drops into Panama from an aerial armada consisting of 84 aircraft. Simultaneously, aircraft were landing at Howard AFB carrying light infantry forces from the 7th LID and other elements from Fort Bragg.(126)

Friction, however, was to upset the otherwise split-second synchronization of this phase of the operation. Ice storms in North Carolina were so severe they exceeded the capability of the ground crews to de-ice deploying aircraft. As a result, the brigade task force from the 82nd arrived in serials; the first wave arrived on schedule at H+45 minutes; the remainder dropped 3 1/2 hours later at first light.(127)

Of all the major units, though, TF Bayonet was the first into action. Because their attack positions were in such close proximity to their objectives, the assault elements actually began moving prior to H-Hour. The intent of this precautionary move was to place the lead elements in a "slingshot" starting position.(128) Two mechanized companies (B & D/4-6) and a light infantry company (C/1-508th) led the assault, supported by a

platoon of Sheridans, as well as AH-64 and AC-130 gunships. After several hours of fighting, described as the heaviest in the whole operation, TF Bayonet forces cleared the Comandancia of most resistance by late in the day. If it is any indication of the battle's intensity, the lead rifle platoon suffered 26 casualties (WIA) out of its assigned strength of 29.(129) One by one, the remaining PDF strongholds in and around Panama City fell to the heavy-light task force, while TF Atlantic captured the PDF stronghold in Colon, and Renacer Prison at Gamboa after a brisk firefight.(130)

By nightfall, D-Day, most of the PDF units had surrendered. Although sporadic and uncoordinated resistance continued, it came not from PDF die-hards, but from the so-called Dignity Battalions. Their fighting ability was one of the few tactical surprises of the operation. Nevertheless, the identification and attack of the PDF as the center of gravity had been operationally sound. According to one field grade PDF officer, "The whole infrastructure of our forces was destroyed in the first hour."(131)

Finally, after a frustrating period of chasing down leads, the primary objective of Just Cause was at hand. At 2130 hours, 3 January, 1990, an Air Force C-130 took off from Howard AFB, with Manuel Noriega aboard in manacles, bound for Florida. The fourth and perhaps most politically important objective of this contingency operation had been realized.

VI. Conclusion

"Goldwater-Nichols pointed the way in Just Cause, and strengthened General Powell's hand and that of General Thurman". LTG John H. Cushman, USA, Retired (132)

Operation Just Cause was clearly an overwhelming success, but establishing a link between the success of the operation and Goldwater-Nichols requires careful scrutiny. Nevertheless, as more analysis of the operation unfolds, the enhanced command structure mandated by Goldwater-Nichols is "...emerging as one of the most significant lessons learned from Operation Just Cause." (133) Granted, while the legislation encompassed a broad set of reforms, its focal point was clearly the issue of command and control in joint operations. The lawmakers correctly determined that effective command and control is at the heart of any military operation, but especially so in joint operations. Moreover, the framers were convinced that the existing problem had its roots in interservice parochialism. Accordingly, they set out address the problem by reinforcing, not reinventing, a fundamental principle of war: unity of command.

With the stroke of a pen, Goldwater-Nichols eliminated the committee-like chain of command that existed in the Joint Chiefs of Staff, strengthened the hand of the CJCS, and significantly increased the command authority of the combatant commanders; the success of recent contingency operations in the Persian Gulf and Panama attest to this fact. Goldwater-Nichols also eased decision making and established accountability where before there

was none. The chain of command from the President down through the fire team leader was now much more clear.

Operation Urgent Fury was the catalyst of change for the framers of Goldwater-Nichols. To them, that operation represented joint operations at their worst. The operational level command structure was a complex, disjointed chain of command that diffused control and created uncertainty. The uncertainty stemmed from the lack of a clear commander's intent at the operational level; there was no "nested concept". There were also too many players making decisions at echelons above the JTF level, circumventing the chain-of-command, further adding to the confusion and uncertainty.

But C2 has two components; and not only was the command function weak, so too was control. Inadequate communications hampered coordination and control of JTF 120 forces throughout the operation. Many of the problems were technical in nature; incompatible communications equipment, for example. But the larger communications problem was a failure of command itself, because neither CINCLANT or CJTF 120 established adequate communications for the force.(134) This point is critical because it exemplifies the interdependent relationship between command and control. Although they are separate functions, they rely heavily on each other. In stark contrast to Operation Urgent Fury, however, the extensive communications infrastructure (700 networks linked to satellites and voice-scrambling telephones) established for Operation Just Cause, was a direct

result of command emphasis at the operational level.(135) Communications planning and coordination, however, was but one of the functional areas that Just Cause planners gleaned from the Urgent Fury after-action reports. LTG Stiner paid particularly close attention to what had happened in Grenada; he was determined not to refight the last war.(136)

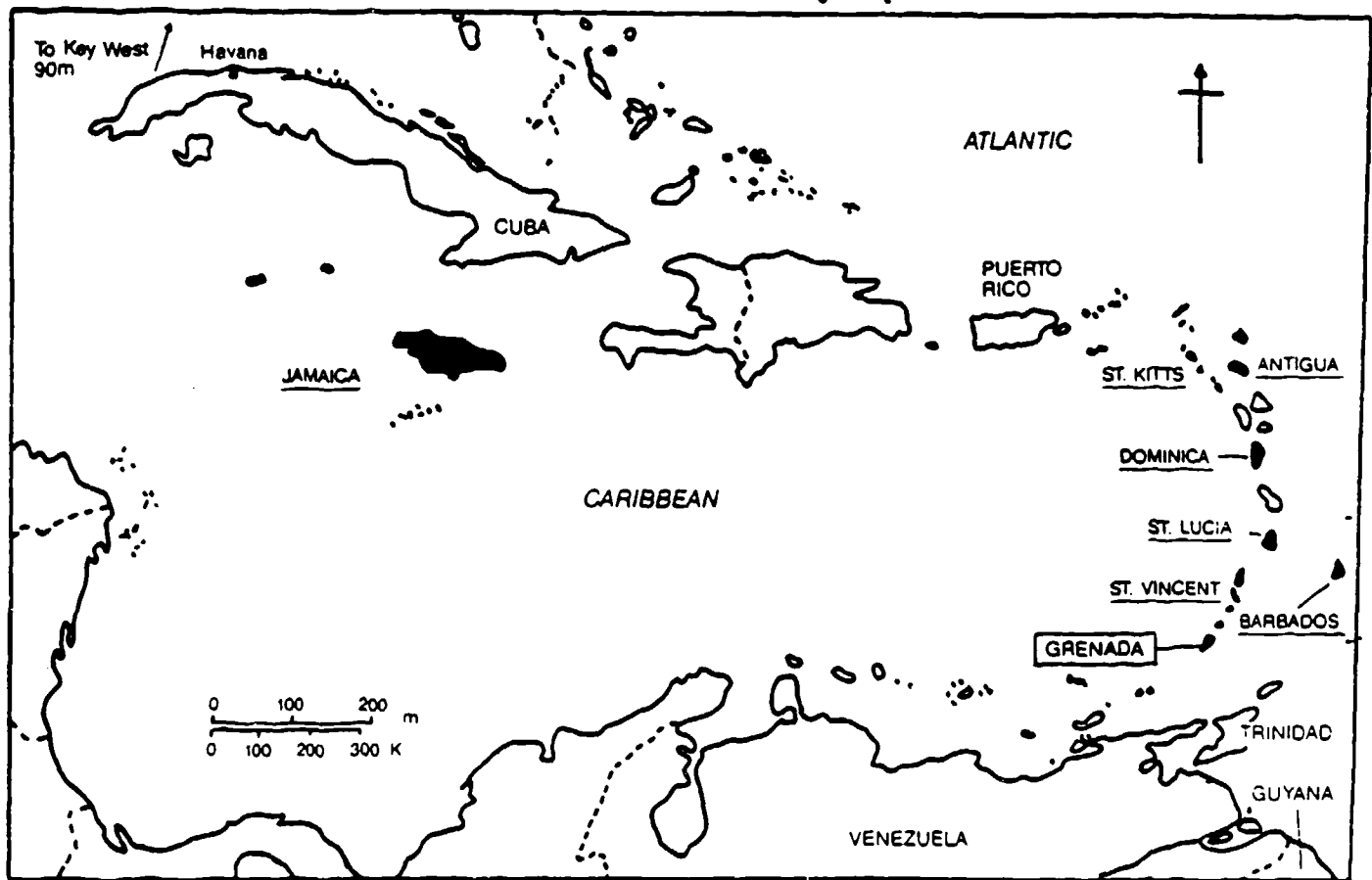
Regarding lessons learned from Operation Just Cause, though, LTG Stiner said, "...there were no lessons learned in this operation...But we did validate a lot of things."(137) LTG Stiner is quite correct. As a contingency operation, Operation Just Cause was not just a well planned and rehearsed mission, executed by well led soldiers; it adhered to established doctrine at each level of war. This was not the case during Operation Urgent Fury where joint warfighting doctrine, what little existed at the time, was routinely ignored for expedients sake.

Another facet of Goldwater-Nichols was that it held the CJCS responsible for the development of joint doctrine. Although several years in the making, joint warfighting doctrine is now being published as part of the Joint Doctrine Master Plan.

But Goldwater-Nichols will never be a panacea for the Service's interoperability problems. As General Wallace Nutting, USA, Retired, recently stated, "Jointness is more than a frame of mind...You cannot legislate jointness."(138) "Jointness" must be embodied in doctrine; moreover, joint operational effectiveness is dependent upon the development of not only joint doctrine, but adequate joint training to effectively employ, evaluate, and

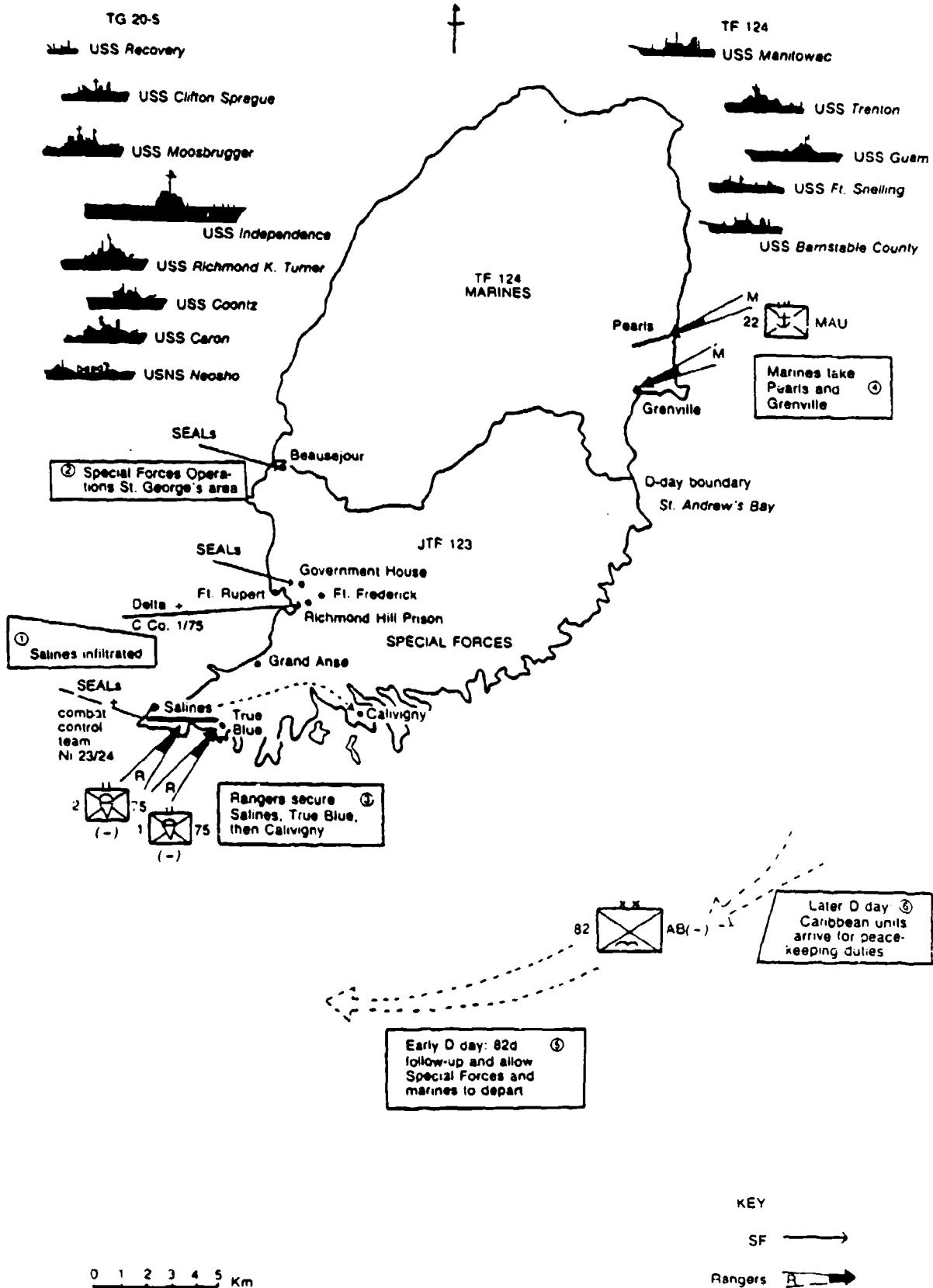
refine it.(139) Nevertheless, the foundations of the "service wall" still exists, which means we have more work ahead before we achieve true "jointness".

Map A: Strategic Setting



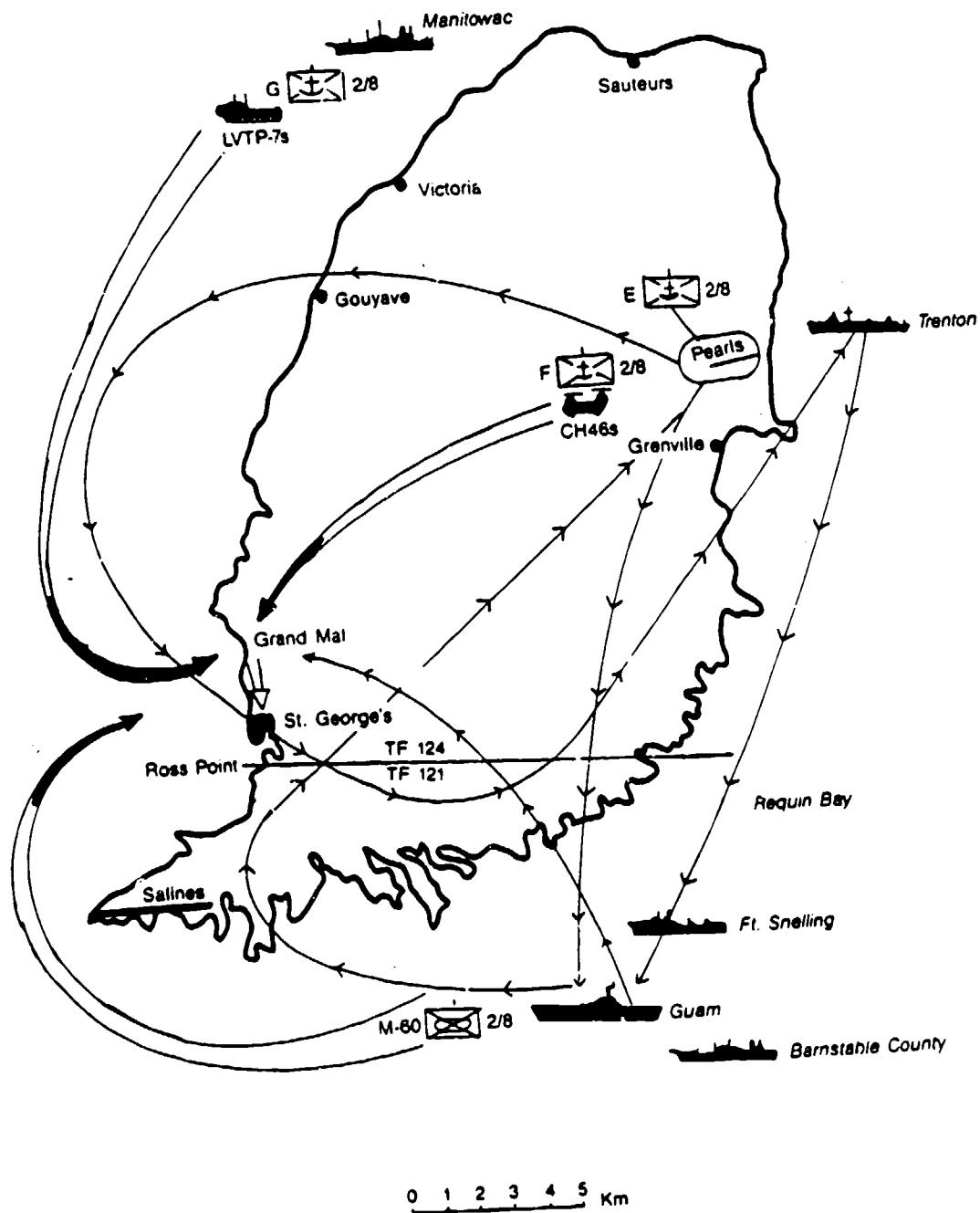
(Copied from "Urgent Fury", by Mark Adkin)

Map B: JTF 120 Forces/ Boundaries



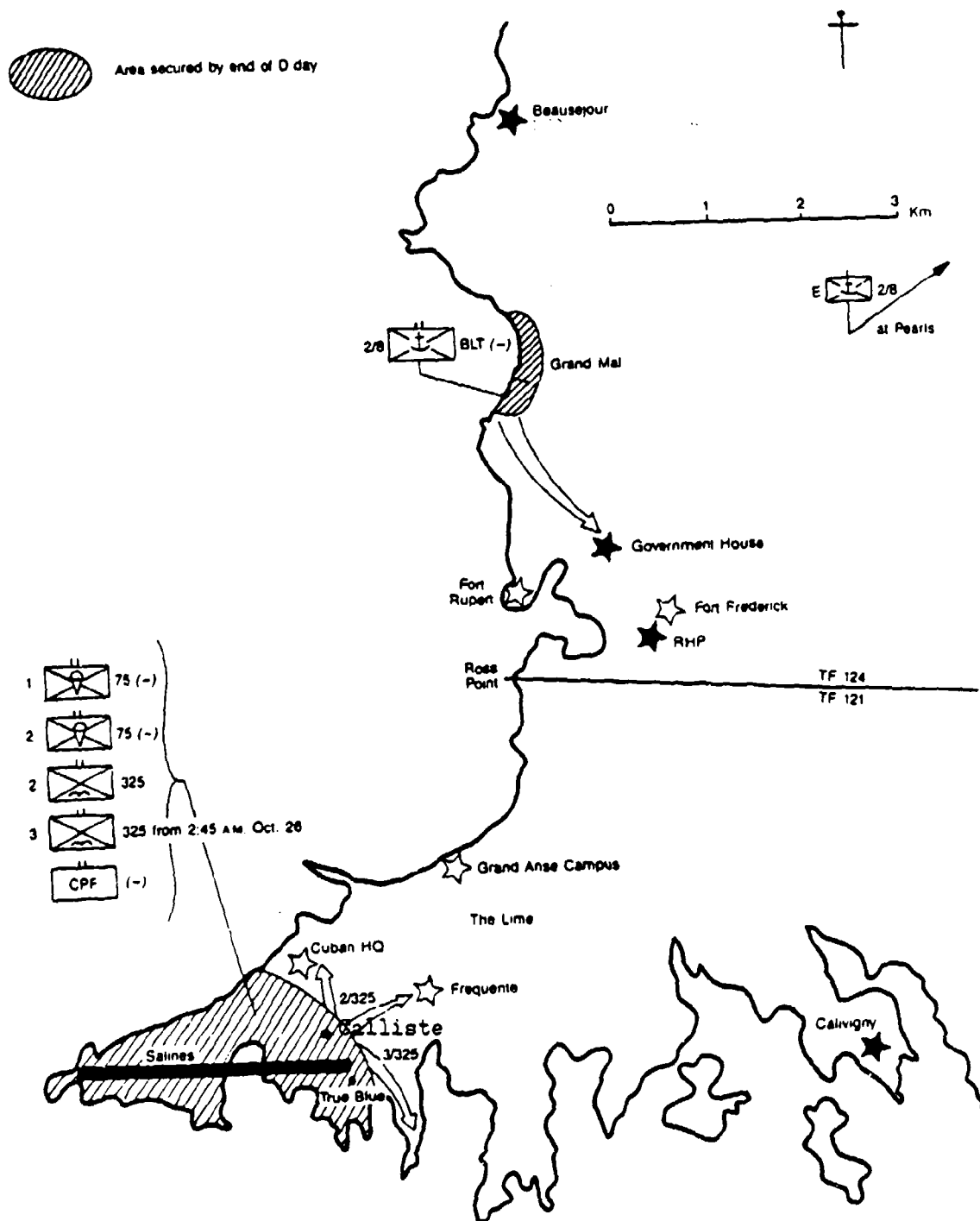
(Copied from "Urgent Fury", by Mark Adkin)

Map C: TF 124 Envelopment-Grand Mal



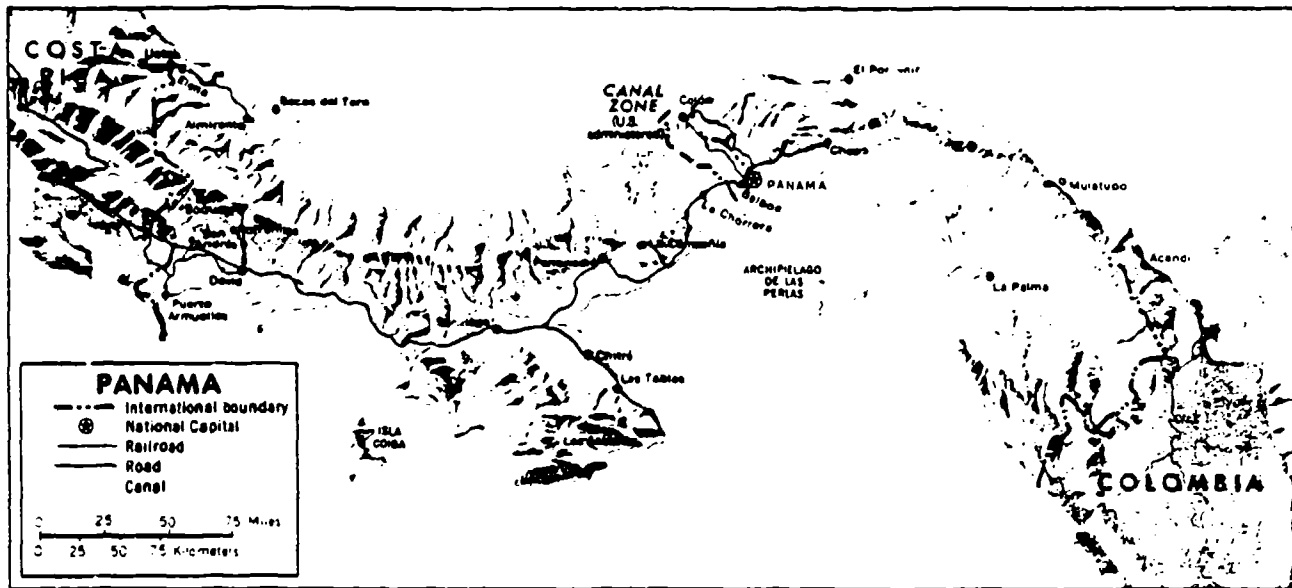
(Copied from "Urgent Fury", by Mark Adkin)

Map D: D-Day Dispositions

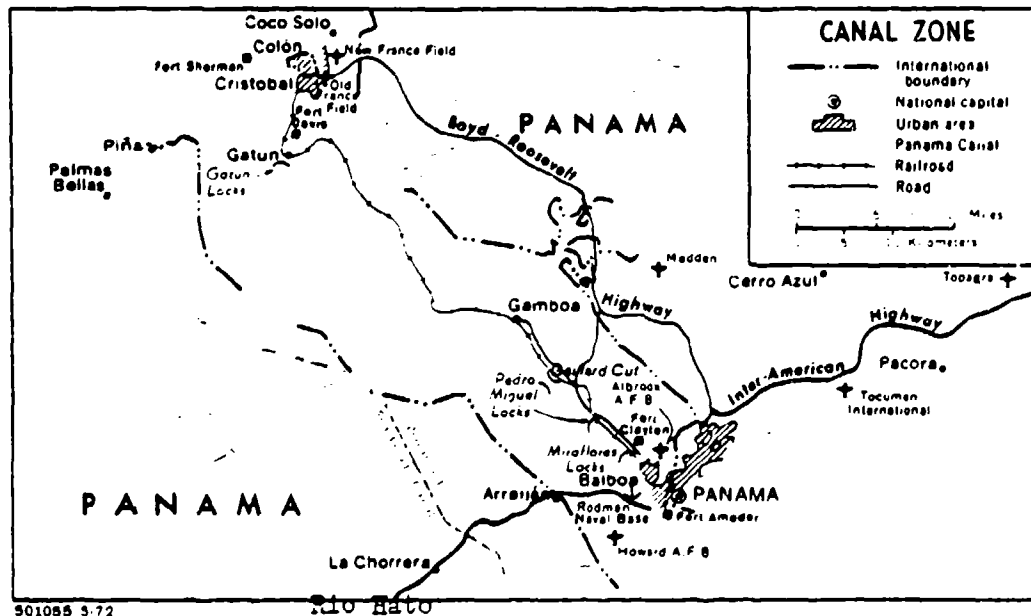


(Copied from "Urgent Fury", by Mark Adkin)

Map E: Panama and Key Objectives



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APPENDIX A

Operation Just Cause: Operational Art?

If, as posited previously, that contingency operations are the most probable form of conflict, it is worthwhile to determine at what level of war contingency operations like Just Cause belong. And is operational art applicable? FM 100-5, Operations, states that operational art involves the "... employment of military forces to attain strategic goals in a theater of war or a theater of operations through the design, organization, and conduct of major operations and campaigns."(1) Operation Just Cause certainly involved the use of military forces to achieve strategic aims.

Further, a key decision in operational art is whether to accept or decline battle, and its "...essence is the identification of the enemy's operational center of gravity."(2) As noted before, the Just Cause planners correctly identified the PDF as the center of gravity and concentrated superior combat power against the PDF in simultaneous military actions.

Yet all too frequently, many students of operational art equate large unit operations with operational art. But size should not of itself be a criterion. Again, citing FM 100-5, "No particular echelon of command is solely or uniquely concerned with operational art."(3) Further, the operational level of war properly relates to the strategic aim, not to the size,

echelon, or type of formations involved. In fact, it is strategy that determines the military objectives. We have already seen how President Bush's strategic objectives translated into military objectives. Thus, the nature of those objectives will, in turn, determine the number and type of forces committed.(4) In Just Cause, it was the synchronized employment of battalions, companies, and even teams that established the military conditions that achieved the strategic goals outlined by the President.

A second point of contention regarding contingency operations, is the relationship of operational art to the tactical level of warfare. The issue arises because the inherent fast-moving conditions that exist in contingency operations do not fit easily into preconceived molds of battles and engagements. In defining battle, FM 100-5 actually contradicts itself by first ascribing particular echelons to the conduct of battle. "Battles occur when large forces--divisions, corps, armies--commit themselves to fight for significant goals."(5) That definition precludes the application of operational art to a military action like Just Cause unless you apply a standard other than the size of forces.

The contradiction arises because FM 100-5 later qualifies its original definition by saying that battles "...may not take place at all if the enemy can be rapidly overwhelmed in a series of minor engagements and prevented from mounting a coherent defense..."(6) This is precisely what occurred in Panama and

should have happened in Grenada. This criterion, I believe, correctly places contingency operations like Urgent Fury and Just Cause in the proper perspective regarding operational art.

ENDNOTES

1. Michael A. Green and Paul Tiberi, "Contingency Planning: Time For a Change", Parameters, (September, 1987), p. 36.
2. Robert L. Pfaltzgraff, Jr. "The Army as a Strategic Force in 90s and Beyond", Army, (February, 1990), p. 21.
3. Green, "Contingency Planning: Time For A Change", p. 36.
4. U.S. Army, Field Manual 100-5, Operations, (Washington, D.C., 1986), p. 169.
5. Green, "Contingency Planning: Time For A Change", p. 43.
6. JCS Pub 3-0, Doctrine for Unified and Joint Operations, (Washington, D.C., January, 1990), pp. III, 10-12.
7. U.S. Army, Field Manual 100-5, Operations, (Washington, D.C., 1986), p. 171.
8. Daniel P. Bolger, Americans at War, (Novato, CA, 1988), p.15.
9. Ibid., p. 86.
10. Ibid., p. 120.
11. John H. Cushman, "Command and Control of Theater Forces: the Korean Command and Other Cases", Prepared for: Program on Information Resources Policy, (Harvard University, March, 1986) pp. 5-42. Hereafter cited as "Command and Control of Theater Forces".
12. Mark Adkin, Urgent Fury, The Battle for Grenada, (Lexington, MA, 1989), p. 309. Hereafter cited as Urgent Fury.
13. Senator Sam Nunn, "DoD Organization: An Historical Perspective", Armed Forces Journal International, (October, 1985), p. 15. Hereafter cited as Nunn, DoD Organization.
14. Interview with COL Frank Akers, USA, Deputy Commander, Combined Arms Training Activity (CATA), (former G-3 82d Airborne Division during Operation Urgent Fury, and Team Chief, Department of the Army Observation team for Operation Just Cause), (21 March, 1990). Hereafter cited as Akers Interview.
15. Kenneth L. Moll, "Understanding C2", Defense and Foreign Affairs, (June-July, 1978), p. 23.
16. Ibid., pp. 48-50.
17. Ibid., p. 50.

18. Interview with OTL George Keerl, Faculty, Bundeswehr Fuhrungs Akademie, (1 March, 1990).
19. William E. De Puy, "Concepts of Operation: The Heart of Command, the Tool of Doctrine", Army, (August, 1988), p. 31. Hereafter cited as "Concepts of Operation".
20. General John W. Foss, USA, "Command", Military Review, (May, 1990), p. 5.
21. Moll, "Understanding C2", p. 55.
22. Foss, "Command", p. 5.
23. U.S. Army, JCS Pub 5-00.2, Joint Task Force (JTF) Planning Guidance and Procedures, (Washington, D.C., June, 1988), pp. II, 13-14. Hereafter cited as JTF Planning Guidance and Procedures.
24. Robert Debs Heinl, Jr., Dictionary of Military and Naval Quotations, (Annapolis, U.S. Naval Institute, 1966), p. 59.
25. Carl Von Clausewitz, On War, Edited and translated by Michael Howard & Peter Paret, (Princeton, 1976), p. 294.
26. Nunn, DoD Organization, p.15.
27. U.S. Army Command & General Staff College. Department of Joint & Combined Operations, "Operation Urgent Fury-Lessons Learned (Secret)," (Undated), p. II-1. Hereafter cited as DJCO, Urgent Fury.
28. Michael J. Byron, "Fury from the Sea: Marines in Grenada", Proceedings, U.S. Naval Institute, (May, 1984), p. 122. Hereafter cited as "Fury from the Sea: Grenada".
29. Adkin, Urgent Fury, p. 48.
30. Byron, "Fury from the Sea: Grenada", p. 124.
31. Ibid., p. 24.
32. Joseph Metcalf, III., "Decision Making & The Grenada Rescue Operation", Briefing text, (Undated), p. 5. Hereafter cited as "Decision Making: Grenada".
33. Adkin, Urgent Fury, pp. 131-132, and Akers Interview.
34. Byron, "Fury from the Sea: Grenada", p. 124.
35. Ibid.
36. Ibid.

37. Akers Interview.
38. Byron, "Fury from the Sea: Grenada", p. 125.
39. Adkin, Urgent Fury, p. 113.
40. Ibid., pp. 142-143.
41. Ibid., p. 132, and Akers Interview.
42. Scott R. McMichael, "URGENT FURY: Looking Back and Looking Forward," Field Artillery Journal, (March-April, 1985), p.10. Hereafter cited as McMichael "Urgent Fury".
43. Senate Armed Services Committee Staff Report, Defense Organization: The Need for Change, (Washington, D.C., 16 October, 1985), p.366. Hereafter cited as SASC Defense Organization.
44. Metcalf, "Decision Making: Grenada", p. 7
45. Adkin, Urgent Fury, p. 134.
46. DJCO Urgent Fury, p. 38.
47. Ibid.
48. Ibid., pp. 35-36.
49. Ibid., p. V-1.
50. Adkin, Urgent Fury, p. 219.
51. DJCO Urgent Fury, p. V-1.
52. Ibid., p. V-9, and Akers Interview.
53. Ibid.
54. MG H. Norman Schwarzkopf, USA, Debriefing to Department of the Army Staff, Unpublished transcripts, (Undated) p. 8. Hereafter cited as Schwarzkopf debriefing.
55. Byron, "Fury from the Sea: Grenada", p. 126.
56. Adkin, Urgent Fury, p. 210.
57. Metcalf, "Decision Making: Grenada", p. 11.
58. Ibid., p. 12, and Schwarzkopf Debriefing, pp. 23-24.
59. Byron, "Fury from the Sea: Grenada", p. 128.

60. Adkin, Urgent Fury, p. 224.
61. Ibid., p. 229.
62. Bolger, Americans at War, p. 335.
63. Jack L. Hamilton, "Operation Urgent Fury: A Battalion Commander's Perspective", Paper for the National War College, (March 1985). p. 21.
64. Schwarzkopf Debriefing, p. 36.
65. Adkin, Urgent Fury, pp. 283-284.
66. Ibid., p. 308.
67. Bolger, Americans at War, p. 344.
68. DJCO Urgent Fury, p. 40.
69. Schwarzkopf Debriefing, p. 17.
70. DJCO Urgent Fury, p. 45.
71. Ibid., p. 39.
72. Schwarzkopf Debriefing, p. 29.
73. Adkin, Urgent Fury, p. 219.
74. DJCO Urgent Fury, p. 45.
75. McMichael, "Urgent Fury", p.12.
76. Adkin, Urgent Fury, p. 286.
77. McMichael, "Urgent Fury", p.10.
78. Adkin, Urgent Fury, p. 190.
79. Schwarzkopf Debriefing, p. 52.
80. Nunn, "DoD Organization", p. 15.
81. Ibid., p. 14.
82. Ibid., p. 15.
83. Ibid., p. 22.
84. LTG John H. Cushman, USA, Retired, "Carrying Out Goldwater-Nichols with respect to the Planning, Command and Conduct of

Military Operations", An assessment of DoD Performance, 1986-88, prepared for Project on Monitoring Defense Organization, (20 December, 1988), p. 2. Hereafter cited as Cushman, "Carrying out Goldwater-Nichols".

85. Cushman, "Command and Control of Theater Forces", p. 5-1.

86. Ibid., p. 5-2.

87. Ibid., p. 5-3.

88. Ibid., p. 5-5.

89. Nunn, "DoD Organization", p. 45.

90. William Caldwell and James K. Gruetzner, "DoD Reorganization", Proceedings, (May, 1987), p. 143. Hereafter cited as Caldwell, "DoD Reorganization".

91. Ibid.

92. Arthur T. Hadley, "Military Coup - The Quiet Reform that Worked", The New Republic, (18 January, 1988), p. 17. Hereafter cited as "Military Coup".

93. Cushman, "Carrying out Goldwater-Nichols", p. 2.

94. Caldwell, "DoD Reorganization", p. 144.

95. Cushman, "Carrying out Goldwater-Nichols", p. 4.

96. Ibid., p. 2.

97. Caldwell, "DOD Reorganization", p. 143.

98. Cushman, "Carrying out Goldwater-Nichols", p. 6.

99. Hadley, "Military Coup", p. 17.

100. Ibid.

101. Ed Magnusson, "Passing the Manhood Test", Time, (8 January, 1990), p. 43.

102. LTG Carl Stiner, USA, interview: "The Architect of Just Cause", Army Times, (12 March, 1990), p. 15.

103. BG William Hartzog, USA, J-3, US SOUTHCOM; Operation Just Cause Briefing notes, (2 March, 1990).

104. Russel Watson, "The Invasion of Panama", Newsweek, (1 January, 1990), p. 20.

105. Ibid., p. 21.
106. Vogel, "An explosion of violence marks end of year long fuze", Army Times, (1 January, 1990), p. R4.
107. Ibid.
108. Telephonic Interview with LTC Charles Burgdorf, USA, G-3 Plans, XVIIIth Airborne Corps, (22 January, 1990).
109. Hartzog, Briefing notes.
110. Ibid.
111. George C. Wilson, "Southcom Commander Rewrote Contingency Plans for Action", Washington Post, (7 January, 1990), p. A22.
112. Clausewitz, On War, p. 557.
113. Hartzog, Briefing notes.
114. Dennis Steele, "Operation Just Cause", Army, (February, 1990), p. 41.
115. Ibid.
116. Ibid., p. 40.
117. Akers Interview.
118. Steele, "Operation Just Cause", p. 40.
119. Ibid., p. 37.
120. Ibid., p. 41.
121. Hartzog, Briefing notes.
122. Ibid.
123. Akers Interview.
124. Hartzog, Briefing notes.
125. Ibid.
126. Robert R. Ropelewski, "Planning, Precision, & Surprise Led to Panama Success", Armed Forces Journal International, (February, 1990), p. 26. Hereafter cited as "Planning, Panama Success".
127. Hartzog, Briefing notes.

- 128. Steele, "Operation Just Cause", p. 42.
- 129. Hartzog, Briefing notes.
- 130. Steele, "Operation Just Cause", p.43.
- 131. Ed Magnusson, "Passing the Manhood Test", Time, (8 January, 1990), p. 43.
- 132. Interview letter response from LTG John H. Cushman, USA, Retired, dated 6 April, 1990.
- 133. Caleb Baker, "Planning Smoother Without Civilians", Army Times, (19 March, 1990), p. 12.
- 134. DJCO, Urgent Fury, p. 46.
- 135. Neil Munro, "Communications a Panama Success Story", Army Times, (7 May, 1990), p. 28.
- 136. Akers Interview.
- 137. Stiner, "Architect", p. 14.
- 138. General Wallace Nutting, USA, Retired, Briefing notes, 5 May, 1990.
- 139. SASC Staff Report, Defense Organization, p. 165.

APPENDIX A

1. U.S. Army, Field Manual 100-5, Operations, (Washington, D.C., 1986), p. 10.
2. Ibid.
3. Ibid.
4. David Jablonsky, "Strategy and the Operational Level of War: Part II", Parameters, (Summer, 1987), p. 53.
5. U.S. Army, Field Manual 100-5, Operations, p. 10.
6. Ibid., p. 11.

SELECTED BIBLIOGRAPHY

BOOKS

- Adkin, Mark. Urgent Fury, The Battle for Grenada. Lexington, MA: Lexington Books, 1989.
- Bolger, Daniel P. Americans at War. Novato, CA: Presidio Press, 1988.
- Clausewitz, Carl Von. On War. Edited and translated by Michael Howard & Peter Paret. Princeton, NJ: Princeton University Press, 1976.
- Heinl, Robert D., Jr. Dictionary of Military and Naval Quotations. Annapolis, United States Naval Institute, 1966. p.59.
- Van Creveld, Martin. Command in War. Cambridge, MA: Harvard University Press, 1985.

MANUALS

- Field Manual 100-5, Operations. Washington, DC: HQ Department of the Army, 1986.
- Field Manual 100-15, Corps Operations. Washington, DC: HQ Department of the Army, 1989.
- JCS Pub 3-0, Doctrine for Unified and Joint Operations, Washington, DC: The Joint Staff, (Test Pub), January, 1990.
- JCS Pub 5-00.2, Joint Task Force (JTF) Planning Guidance and Procedures, Washington, DC: The Joint Staff, (Test Pub), June 1988.

ARTICLES AND PERIODICALS

- Adams, Dwight L. and Clayton R. Newell. "Operational Art in the Joint and Combined Arenas," Parameters, June, 1988, pp. 33-39.
- Baker, Caleb. "Planning Smoother Without Civilians," Army Times 19 March, 1990, p. 12.
- Bolger, Daniel P. "Special Operations and the Grenada Campaign," Parameters, December, 1988, pp. 49-61.
- Byron, Michael J. "Fury from the Sea: Marines in Grenada," Proceedings, U.S. Naval Institute, May, 1984, pp 118-131.
- Caldwell, William and James K. Gruetzner. "DOD Reorganization," Proceedings, May, 1987, pp. 136-145.

- De Puy, William E. "Concepts of Operation: The Heart of Command, the Tool of Doctrine," Army, August, 1988, pp. 26-40.
- Donnelly, Tom. "Precision and Professionalism Mark Invasion," Army Times, 15 January, 1990, pp. 11-13.
- Foss, General John W. USA, "Command", Military Review, May, 1990, pp. 2-8.
- Green, Michael A. and Paul Tiberi. "Contingency Planning: Time For a Change," Parameters, September, 1987, pp. 35-43.
- Hadley, Arthur T. "Military Coup - The Quiet Reform that Worked," The New Republic, 18 January, 1988, pp. 17-18.
- Holder, L.D. "Training for the Operational Level," Parameters, Spring, 1986, pp. 7-13.
- Hughes, David. "Night Airdrop in Panama Surprises Noriega's Forces," Aviation & Space Technology, 1 January, 1990, pp. 30-33.
- Jablonsky, David. "Strategy and the Operational Level of War: Part II," Parameters, Summer, 1987, pp. 52-67.
- Magnusson, Ed. "Passing the Manhood Test," Time, 8 January, 1990, p. 43.
- McMichael, Scott R. "URGENT FURY: Looking Back and Looking Forward", Field Artillery Journal, March-April, 1985, pp. 8-13.
- Mendel, William W. "Theater Strategy and the Theater Campaign Plan: Both are Essential," Parameters, Dec. 1988, pp. 42-48.
- Moll, Kenneth L. "Understanding C2," Defense and Foreign Affairs, June-July, 1978, pp. 23-55.
- Moore, Molly and Patrick E. Tyler. "U.S. Paratroopers May Have Seen Noriega Escape During Invasion," Washington Post, 7 January, 1990, pp. A1, A22.
- Munro, Neil. "Communications a Panama Success Story". Army Times, 7 May, 1990, p. 28.
- Nunn, Sam. "DoD Organization: An Historical Perspective," Armed Forces Journal International, October, 1985, pp. 14-45.
- Pfaltzgraff, Robert L. Jr. "The Army as a Strategic Force in 90s and Beyond," Army, February, 1990, pp. 20-26.

Ropelewski, Robert R. "Planning, Precision, & Surprise Led to Panama Success," Armed Forces Journal International, February, 1990, pp. 26-32.

Roth, Margaret. "Panama; an Attack Plan for the Future," Army Times, 8 January, 1990, pp. 10 & 15.

Schemmer, Benjamin F. "Panama and Just Cause: The Rebirth of Professional Soldiering," Armed Forces Journal International, February, 1990, p. 5.

Snider, Don M. "DoD Reorganization: Part 1, New Imperatives," Parameters, September, 1987, pp. 88-100.

Steele, Dennis. "Operation Just Cause," Army, February, 1990, pp. 35-44.

Sutten, Charles G. "Command & Control at the Operational Level," Parameters, Winter, 1986, pp. 15-22.

Vogel, Steve. "An explosion of violence marks end of yearling fuze," Army Times, 1 January, 1990, pp. R2-R8.

Watson, Russel. "The Invasion of Panama," Newsweek, 1 January, 1990, pp. 13-26.

Wilson, George C. "Southcom Commander Rewrote Contingency Plans for Action," Washington Post, 7 January, 1990, pp. A1-A2, A22.

DOCUMENTS

Crocker, LTC George A. USA, "Grenada Remembered: A Narrative Essay on Operation Urgent Fury." Paper for U.S. Army War College, 21 March 1987, 19 pages.

Currie, CDR Michael P. USN, "Operational Lessons of Urgent Fury." Paper for Naval War College, 17 June 1988, 30 pages.

Cushman, LTG John H. USA, Retired, "Carrying out Goldwater-Nichols with respect to the Planning, Command, and Conduct of Military Operations." An assessment of DoD Performance, 1986-88, prepared for Project on Monitoring Defense Organization, 20 December, 1988.

_____. "Command and Control of Theater Forces: the Korean Command and Other Cases." Prepared for Program on Information Resources Policy, Harvard University, March, 1986, pp. 4/1 - 6/40.

Duck, LTC Theodore A. USA, "An End to Ad Hocism in the Joint Arena: A Recommended Solution." Paper for Naval War College, 15 May, 1987, 22 pages.

- Hamilton, LTC Jack L. USA, "Operation Urgent Fury: A Battalion Commander's Perspective," Paper for The National War College, March, 1985, 32 pages.
- Metcalf, VADM Joseph III. USN, "Decision Making & the Grenada Rescue Operation." Briefing text, Undated, pp. 1-21.
- Schwarzkopf, MG H. Norman, USA. Debriefing to the Department of the Army Staff, unpublished transcripts, undated, pp. 1-55.
U.S. Army Combined Arms Center. BCTP, Memorandum for Record, Subject: Meeting with LTG Wishart Re C2, 21 December, 1989, 3 pages.
- U.S. Army Command & General Staff College. "Joint Doctrine Master Plan", Briefing Slides, Undated.
- U.S. Army Command & General Staff College. Department of Joint & Combined Operations, Appendix 1 to Advance Sheet, Lesson 12, Principles of Joint and Combined Operations and Commands, Grenada Case Study, 1988, pp. 103-124.
- U.S. Army Command & General Staff College. Department of Joint & Combined Operations, "Operation Urgent Fury- Lessons Learned (Secret)," Undated.
- U.S. Army, Combined Arms Center. Grenada Work Group, "Operation Urgent Fury Assessment (Secret)," Undated.
- U.S. Department of the Army. HQS, 82d Airborne Division, "Lessons Learned from 1983 Operation Urgent Fury (Secret)", 16 May 1985.
- U.S. Congress, House Armed Services Committee Staff Report, "Lessons Learned as a Result of the U.S. Military Operations in Grenada," Washington, D.C., 98th Congress, Second Session, 24 January, 1984.
- U.S. Congress, Senate Armed Services Committee Staff Report, "Defense Organization: The Need for Change", Washington, D.C., 99th Congress, First Session, 16 October, 1985.

INTERVIEWS AND BRIEFINGS

- Akers, COL Frank, USA, Deputy Commander, Combined Arms Training Activity (CATA), (82d Airborne Division G-3, Operation Urgent Fury, and Team Chief for Department of the Army Observer Team for Operation Just Cause) 21 March, 1990 interview notes.
- Burgdorf, LTC Charles, USA, G-3 Plans, XVIIIth Airborne Corps, 22 January, 1990 telephonic interview notes.
- Carns, LTG Michael, USAF, Director, Joint Chiefs of Staff, notes from 9 April, 1990 briefing at Ft. Leavenworth, KS.

Cushman, LTG John H. USA, Retired, interview letter response dated 6 April, 1990.

Hartzog, BG William, Operation Just Cause briefing notes, 2 March, 1990.

Keerl, OTL George, Faculty, Bundeswehr Fuhrungs Akademie, 1 March, 1990 interview notes.

Nutting, GEN Wallace, USA, Retired, Guest Speaker notes, 5 May, 1990.

Stiner, LTG Carl, USA, "The Architect of 'Just Cause'," interview comments in Army Times, 12 March, 1990, pp. 14-18, 68.